

A CONCEPTUAL STUDY OF AYASTILAADI MODAK IN THE MANAGEMENT OF PANDU ROGA

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ABSTRACT

Pandu roga can be closely compared with Anaemia on the basis of its similar signs and symptoms. Iron deficiency Anaemia is most common type of Anaemia. Anaemia is most prevalent nutritional deficiency disease in both the developed and developing countries. 9 out of 10 peoples living in developing countries are the sufferers of IDA. This compelled the W.H.O. to declare it as a world health problem. *Pandu Roga* is mainly concerned with the vitiation of *Pitta Dosha* which in turn vitiates *Rakta* and other *Dathus*. The oral iron preparations used in modern science are gastric irritants and have side effects like nausea, constipation, diarrhoea etc. which further deteriorates the health of the patient. Ayurveda has lots of offer for the treatment of *Pandu Roga* with its *Lauha* preparations and herbal treasures without any side effects. So, *Ayastilaadi Modak* mentioned in Bhaishajya Ratnavali for *Pandu chikitsa* is subjected for treatment.

Keywords: IDA, *Pandu Roga*, *Rakta*, Haemoglobin, *Ayastilaadi Modak*.

INTRODUCTION

Ayurveda is the science of life which is focused on maintenance of positive health in healthy and eradication of ailments in diseased through its holistic approach, lifestyle practices, dietary habits and safer medications. Mal-nutrition either due to inadequate dietary intake or lack of balanced diet and population explosion in today's world, has led to the development of various diseases and *Pandu Roga* is one such disease. *Pandu Roga* is a disease characterized by pallor of body which can be resembles with Anaemia of modern science.¹

Pandu Roga is mainly concerned with the vitiation of *Pitta Dosha* which in turn vitiates *Rakta* and other *Dhatus*. *Pitta* is responsible for normal colour of the

body, so if it gets vitiating; impairment of colour and complexion (*Panduta*) occurs. *Pandu Roga* as mentioned in *Ayurvedic* texts in terms of *Nidana*, *Samprapti*, *Lakshanas* and *chikitsa* has very close resemblance with the description of Anaemia available in modern texts. Anaemia is functionally defined as the presence of insufficient red blood cell (RBC) mass to adequately deliver oxygen to the peripheral tissues. It may be due to increased RBC clearance, decreased RBC production, or both, and can be caused by intrinsic or extrinsic reasons.² Iron deficiency Anaemia is the most common type of Anaemia, more than half of patients with anaemia are assumed to have IDA. The third National Family Health Survey (India-NFHS)

estimates that 56% of women and 70% of children in India have anaemia.³

In modern science, drugs have so many side effects regarding treatment of Anaemia. In the other hand, *Ayurveda* uses the inherent power of natural herbs to bring about wonderful results on the human body. The *Ayurvedic* herbs help to overcome Anaemia of extrinsic and intrinsic origins.

NEED OF STUDY:-

Anaemia is a global public health problem affecting both developing and developed countries with major consequence for human health as well as social and economic development. It occurs at any age in both gender. Globally IDA is most commonly found; so IDA and Anaemia are often used synonymously. The main risk factor for IDA include; a low intake of iron, poor absorption of iron from diet high in phytate or phenolic compounds and period of life when iron requirements are especially high i.e. in growth and pregnancy.⁴

Many drugs are available in the modern science for combating anaemia but they are costly and therefore out of reach of poor people, who are the major sufferers of the ailment; more over the other modern drugs produce side effects. Thus, it is the need of time to use herbal drugs which are easily available, effective and low in cost from *Ayurveda*. There were descriptions of single herbal drugs as well as formulations for the management of *Pandu Roga* available in *Ayurvedic* texts; one of which is “*Ayastilaadi Modak*” mentioned in *Bhaishajya Ratnavali*.

AIM: To evaluate the therapeutic effects of *Ayastilaadi Modak* in management of *Pandu Roga*.

DISEASE REVIEW:

ETYMOLOGY (NIRUKTI):

Vyutpatti of Pandu: The word *Pandu* has been derived from “*Padi Nashne Dhatu*” by adding “*Ku*” *Pratyay* in it, the meaning of which is always taken in sense of “*Nashan*” i.e. loss. As *Pandu* has been kept under the group which is classified and named according to the change of color, therefore “*Nashan*” should be considered in the sense of “*Varna*” or color, which is further clarified by *Charak* with the word *Vaivarna*. Thus, *Pandu* is a disease in which

there is *Vaivarna* or change in the normal color of the body.⁵

Origin of word Anaemia: Anaemia is derived from Greek word “Anaemia” which means “Lack of blood”. Reduced quantity of RBCs or Haemoglobin% which causes paleness of skin (*Vaivarna*) is called as Anaemia.

Nirukti of Pandu: In *Pandu Roga* there is whitish/yellow discoloration of skin and the person suffers from generalized weakness, fatigue, lethargy, decreased strength and complexion. He becomes insipid i.e. *Nissar and Shithilendriya* (loss of natural integrity, tone and strength of *Dhatu*)⁶ *Vachaspatya* refers *Pandu* as Pollengrains of *Ketaki* flower as like white-yellow colour.

Nomenclature of disease: In *Ayurvedic texts*, nomenclature of the disease has its own importance; the disease has been nomenclature on various ground; e.g. - *Gulm* according to the *swaroopa* of *vyadhi Visarpa* according to the progression of *vyadhi Kasa* according to the symptom of *vyadhi* etc.

In the same manner, the disease *Pandu* has been described on the basis of its presentation with colours.

CAUSATIVE FACTORS:⁷

The aetiological/*Samanya nidana* of *Pandu Roga* mentioned in *Charka*, *Sushruta* and other *Samhitas* can be broadly classified into 3 groups.

(*Charka chikitsa* 16/8; *Sushruta Sutrasthan* 44/3; *Ash-tang Sangraha Nidan* 13/3)

1. Causes related to *Ahara/Aharaj Nidana*.
2. Causes related to *Vihara*.
3. Other diseases i.e. *Nidanarthaka Roga*.

1) Aharaj Nidana- Food or diet plays an important role in the normal development and maintenance of different *Dhatu*s of body. The food/*Ahara* deficient in quality, quantity and faulty diet having *Amla*, *Katu*, *Lavana*, *Kshara*, *Ushana*, *Tikshana guna* in *atimatra* will cause *Mandagni*, *pitta* and *Vata prakopa*; which will lead *Pandu Roga*.

2) Viharaj Nidana- The daily faulty routine activity related to mental or physical and also faulty treatment is responsible for the manifestation of *Pandu Roga*. E.g. *Diwaswapana*, *Adhikashrama-chintan*, *Vegavid-harna*, etc.

3) Other /Secondary/Nidanarthaka Causes - *Ayurvedic* literature has indicated a correlation of various diseases with *Pandu Roga* either as symptom or as *upadrava*. So, all these can be causes of *Pandu* i.e. *Nidanarthaka roga* of *Pandu*. E.g. *Raktatipravartana*, *Raktarsha*, *Raktarbuda*, *Asrigdara* or *Raktapradara*, *Rajyakshama*, *Punaravartaka jwara* etc. which can directly or indirectly vitiates *Vata-Pitta dosha* singly or in combination and cause disease.

SAMPRAPTI (Pathogenesis):⁸

Acharya Charaka has clearly described the *samprapti* of *Pandu*. According to him, due to *nidana sevana pitta* located in the *Hridaya* gets aggravated and this *pitta* being forcefully propelled by *Vayu* and it enters into the *Dash-dhamanya* (attached to the heart) and circulates in the entire body. This aggravated *pitta* being localite in between skin and muscle tissue and vitiates *kapha*, *vata*, *Asrika*, *twaka* and *mansa*. This gives the different types of colouration like *Pandu*, *Haridra* and *Harita* to the skin.

PURVARUPA (Premonitory symptoms):⁹ Palpitation, dryness of skin, absence of sweating and fatigue these are mentioned by *Charka*. *Avipaka* (Indigestion), *Akshi-kutashotha*, *Gatrasada* (sense of lassitude in the limbs), *VinmutraPitata* (yellow colour of stool-urine), *Mridbhakshanaeccha*, *Sthivanadhikya* (salivation) *Twaka-Sphutana* (cracking of skin), these are mentioned by *Sushruta*.¹⁰

RUPA (Symptoms): *Purvarupa* appears in *vyakta-vastha*. According to the *dosha* involvement *samanya* and *vishesh rupa* are mentioned below.

Samanya Rupa-¹¹ *Karnashoola* (tinnitus), *Hatanala* (suppression of the power of digestion), *Durbalya* (weakness), *Annadweshya* (repugnance against food), *Shrama* (fatigue), *Bhramanapidita* (giddiness), *Gatrasula* (bodyache), *Jwara* (fever), *Shwasa* (dyspnea), *Gaurva* (heaviness), *Aruchi* (anorexia), *Akshikutashoth* (Periorbital edema), *Shirnaloma* (hair fall), *Hataprabha* (body luster loss), *Kopana* (irritable), *Nidralu* (drowsy), *Alpawaka* (avoid speaking), *Pin-dikodweshthana* (calf muscle pain), *Katiuru-padruka* (pain and weakness in the lumbar, thighs and feet), *Arohaneayasa* (efforts for climbing).

Vishistha Rupa- Acharya Charka had classified *Pandu Roga* in 5 types; on the basis of these types *vishesh rupas* are described.¹²

1) *Vataj Pandu*:-¹³ *Krishna-panduta* (black and pale yellow complexion), *Rukshata*, *Aruna-agatam* (Reddishness of body), *Angmarda* (malaise), *Ruja* (ache), *Toda* (Pricking pain), *Kampa* (tremor), *Parshvashiroruja* (pain in chest-head), *Varchashosh*, *Aashya-vairashya* (distaste in mouth), *shopha*, *Aanah* (constipation), *Bala-kshaya* (weakness).

2) *Pittaja Pandu*:-¹⁴ *Pita-haritabhata* (complexion become yellow green), *Jwara*, *Daha*, *Trishna* (excessive thirst), *Murcha* (fainting), *Pipasa*, *Pitamutra-shakruta* (yellow urine-stool), *Sweda*, *Sheetakamta*, *Katukasayta* (feeling pungent taste in mouth), *Ushna-aamlanupashyata* (hot-sour things do not suit), *Vidahe vidagadhe anne* (burning sensation due to indigestion of food), *Daurgandhya* (bad smell of body), *Daurbalya* (weakness).

3) *Kaphaja Pandu*:-¹⁵ *Gaurava* (heaviness), *Tundra* (Drowsiness), *Chhardi*, *Shvetavbhasta* (whitish complexion), *Praseka* (salivation) *Lomoharsha* (Horripilation), *Murchha* (Fainting), *Bhrama* (giddiness), *Klama* (mental fatigue), *Kasa*, *Swasa* (dyspnoea), *Alasya* (laziness), *Aruchi* (anorexia), *Vaka-swaragraha* (obstruction in speech -voice), *Shukla mutra-akshivarchasa* (whiteness of urine-eye-stool), *Katurukshoshna kamta* (feeling of having pungent, Hot and dry things), *Swayathu*, *Madhurasyaata* (sweet taste in mouth).

4) *Tridoshaja Pandu*:-¹⁶ Signs and symptoms of vitiation of all the three *doshas* are present in this type of *Pandu*.

5) *Mridbhakshanaja Pandu*:-¹⁷ *Bala-varna-agani nash* (loss of strength, complexion and power of digestion-metabolism), *Ganda-Akshikuta-bhru-pad-nadhi-mehan shotha* (edema on cheek, eye socket, eyebrow, feet, umbilicus, Penis), *Krimi koshta* (Appearance of worm in *koshta*, intestine or via stool), *Atisaryet mala sasrukakapha* (loose motion with blood and mucus).

TREATMENT:-

(In ayurveda)

Chikitsa-sutra¹⁸ The patient suffering from *Pandu Roga* should be given *Tikshna Shodhana* by emetic

and purgative drugs for the elimination of *Doshas* after *snehana* of the body. After *Shodhana*, patient should be given *Pathya Anna* (food) containing old *Shali* (type of rice), *Yava*, *Godhuma* (Wheat) with *Purana Yusha*. After that, specific medicines on the basis of the aggravated *doshas* should be administered. The line of treatment for *Vatika* type of *Pandu* is dominated by *Snehana dravya*, for *Pittja Pandu*, it should be *Sneha* dominated by bitter and cooling drugs, for *Kaphaja* the therapy should be dominated by *Katu*,

Ruksha and *Ushna* drugs and for *Sannipatika* type all of the above mentioned ingredients should be combined according to the *dosha bahulya*.¹⁹

In *Mridbhakshanaja* type, it should be given *Tikshana Sodhana*, in order to remove the swallowed mud from the body.²⁰

After the body cleansed, the patient should be given different types of medicated *Ghrita* for promotion of strength.

AYASTILAADI MODAK YOGA²¹

NAME OF DRUG	BOTANICAL NAME	PART USED	PART
<i>Til</i>	Sesamum indicum	<i>Beej</i>	1
<i>Shunthi</i>	Zingiber officinale	<i>Kanda</i>	1
<i>Marich</i>	Piper Nigrum	<i>Phala</i>	1
<i>Pippali</i>	Piper longum	<i>Phala</i>	1
<i>Loha Bhasm</i>	Ferrum(Fe)		1
<i>Suvarnamakshika</i>	Copper iron pyrite		5

DISCUSSION

Acharya Charka has mentioned *Pandu Roga* as “*Rasa Pradoshaj Vyadhi*” and the causes of all *rasa pradoshaj vyadhi* are mostly *Agnimandya*. *Ayastilaadi Modak* contain well known *Deepan*, *Pachana* drugs i.e. *Triyushana*. The name itself suggests their properties; they are *ushana-tikshana* in nature and having *deepan-pachana* properties. With these properties they improve *Agnimandya* and digestion, and treat *Aam dosha*. As already mentioned that *Aam* and *Agnimandya* is main cause of all *rasa pradoshaja vyadhi*. *Acharya Charka* has prescribed *Rasayan drugs* for chronic disease and this *yoga* also contains *Rasayan* drugs like *Lauha*, *Suvarnamakshika* and *Pipalli*. *Lauha bhasma* and *Suvarnamakshika bhasma* also improves the quality of blood obviously. This *yoga* contains *Suvarnamakshik Bhasma* in large quantity which contains nutrients like iron and copper and trace amount of Mg, Zn, Mn. These nutrients are essential for many biological functions in body. Copper and iron both are essential for forming RBCs. Copper aids in the absorption of iron in the body and iron is essential for formulation of haemoglobin. It is very well known for *Pandu Roga* and has *tridoshghna*,

vrishya, *balya* properties also.²² *Lauha* and *Suvarnamakshika bhasma* have therapeutic importance in the treatment of anaemia, and it has Haematinic, Haematogenic, Anti-inflammatory, Antacid, Anti-hemithic, Anti-depressant properties. In this way, this drug breaks the pathology of anaemia in modern view.

Tila is potent *Vataghna* drug which will cure dryness of body and also have *Twachya guna*. It also has *Sukshma*, *Vishada*, *Vyavayi*, *Mardava* and *Varnyakara gunas* which will help to pacify *Rukshata* and *Nisarata* of the body. Now according to *Ayurveda*, *Pandu* is mainly happen due to *Agnimandya*; as this *yoga* contains *Triushnya* which itself is *Deepan-Pachana* in nature. So it will cure *Agnimandya* and also helps in *Pachana* of other drugs to improve the condition of subject in *Pandu*. *Nisarata* of *twacha* – *indriya*, and *Panduta* in *Pandu roga* is due to *Oja kshaya*. As *Acharya Charaka* had mentioned in *chirkalin vyadhi*, *Rasayan chikitsa* had its own importance along with their treatment. So for *Ojovardhana* and being a *chirakalin vyadhi*, we need *Rasayan drug* which already exist in this *yoga*. *Lauha*, *Suvarnamakshika*, *Pippali* is considered to be *Rasayan* drugs

which are destroying the *samprapti* of *Pandu roga* mentioned in *Ayurvedic* texts. It is obvious that the constituents mentioned in this *yoga* are well effective over all in the conditions described in the pathogenesis of *Pandu Roga*. So it can be useful formulation for the *Pandu Roga*.

MODE OF ACTION:-^{22, 23}

Doshghnata: In *Ayastilaadi Modak* majority of drugs are having *Vata-Kaphaghna* and *Tridosahar* property. So, it becomes helpful in treating *Tridoshaj* and *Vata-kaphaj pandu*.

Effect on Strotas: Maximum number of *dravyas* having *Laghu*, *Tikshna*, *Snighdha guna* and *Katu, Kashaya Rasa*. So, the drug also possesses *sroto-shodhana* by its *guna* and *rasa*, that's why it is able to clarify *Agnimandya* and *Aampachana*.

By Rasa: Majority of drugs in *Ayastilaadi Modak* is having *Katu rasa*, and specific action of *Katu rasa* is *Deepan*, *Pachana*, *Grahi*, *Rochana*, *Krimighna*. So drug increases the *jatharagni* and *Dhathavagni* up to normal level. It also possess *Vishaghna* and *Karshna* action by which it clarify the *Aam dosha* and give *Niramavastha* to *dhatu*. As a result the *dhatu pushthi* will overcome the *samprapti* of *Pandu*.

By Guna: *Laghu* and *Tikshna Guna* of most of the drugs have *ama pachan* and *sroto sudhdhikar* property.

By Karma: *Mandagni* is the motive cause for *Pandu roga* and *Ayastilaadi Modak* contains most drugs which are having *Deepana*, *Panchana* property. So the Drug diminishes *mandagni* and breaks the pathogenesis of *pandu roga*. It also promotes *Dhatvagni* and as a result *dhatupushthi* process is motivated.

CONCLUSION

It is concluded that the disease *Pandu Roga* can be correlated with Anaemia. There are different types of Anaemia out of which Iron deficiency anaemia is the most common type of anaemia. *Swarnamakshika* is considered to be *Rasayanagrya* and *Sarvarogahara*. It does broad spectrum action due to its Nano particle form. It is Anti-fungal, Anti-oxidant as well as Anti-microbial in nature. So, the *rasayan* action can be understood by virtue of anti-oxidant properties of con-

stituent elements. Therefore *Ayastilaadi Modak* with *Katu*, *Kashay Rasa*, *Deepana*, *Pachana*, *Ushna*, and *Tikshna Guna*, along with high quantity of *lauha* and *Suvarnamalshik bhasma* has enough potency to disintegrate the etiopathogenesis of *Pandu Roga*.

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